Project Name: Water System Facility Improvements

Project Number: 210-850-1C34 **Program Area:** Utilities

Prior Appropriations: 1,229,000 Add New Appropriations: 1,260,000 Add Future Appropriations:

Current Project Total: Add Unfunded:

2,489,000 **Current Project Total with Unfunded:**

Status of Prior Year Appropriations as of 05/01/12:

Prior Year Appropriations: 1,229,000 Less Expended: 12,789 **Prior Year Funds Carried Over:** 1,216,211 Add New Appropriations: **Total FY 2013 Appropriations:**

Percent Expended:



Percent Change: -91%

Percent Completed: 2% Est. Completion Year: FY 2014

Description: This project funds a phased study, design and construction of water system improvements to improve water quality, increase production capacity and rehabilitate/replace aging components, that are at the end of their life cycle. The air scour system replaces the nonfunctional surface wash system and will improve the treatment and operational effectiveness of the filters. These improvements will comply with environmental regulations from the Environmental Protection Agency (EPA) and the Maryland Department of the Environment (MDE). Optimization of the existing water treatment, storage and distribution systems will be needed to meet the new EPA Stage 2 Disinfection Byproducts Rule (DBPR). The 2011 Water Quality Study presents a detailed alternatives analysis to identify the most cost-effective means of maintaining regulatory compliance, while looking to increase system capacity to meet future demands. Key projects from this study are to use Ferric Chloride (FeCl), a more effective coagulant, and the potential need to use enhanced filtration through the use of Granulated Activated Carbon (GAC) to ensure EPA Stage 2 DBPR compliance.

1%

Appropriation	Prior	New		Future Ap	propriation	Schedule		Current	
Schedule	Approps	Approps	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total	
Plan/Design/Insp	600,000	60,000	-	-	-	-	-	660,000	
Construction	629,000	1,200,000	-	-	-	-	-	1,829,000	
Total	1,229,000	1,260,000	-	-	-	-	-	2,489,000	
Funding	Prior	New		Future Funding Schedule					
Schedule	Funding	Funding	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total	
Water Fund	600,000	-	-	-	-	-	-	600,000	
Bond Proceeds (Water)	629,000	1,260,000	-	ı	-	-	-	1,889,000	
Total	1,229,000	1,260,000	-	-	-	-	-	2,489,000	
Unfunded Schedule		FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total	
Unfunded		-	-	-	-	=	-	-	
Operating Cost Impact FY 2013		FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs			
Water Fund			120,000	-	=	-	-		

Explanation of impact: This project will add \$120,000 to the FY 2014 operating budget to fund additional operating costs for chemicals and electricity for the change of coagulant to FeCl.

Schedule: Prior years work to be completed — Complete air scour for filters and design FeCl enhanced coagulation changes at the Water Treatment Plant to comply with Stage 2 DBPR. FY 2013 — Construct FeCl improvements at the Water Treatment Plant.

Status: Implementation. The air scour constuction award is planned for Summer 2012 and construction completion is planned for Summer 2013. This project first appeared in the FY 2011 CIP. Based on the Water Ouality Study staff will continue to monitor the level of DBPs within the distribution system to confirm that a GAC upgrade, which would cost \$8.4 million to design and construct, will not be required.

Coordination: Washington Suburban Sanitary Commission; MDE; Water Plant Upgrades (210-850-4A40); Water Tank Improvements (210-850-7A34).

Staff contact: Department of Public Works. Ilene Lish, Civil Engineer II, 240-314-8516.

N/A

Project Name: Water Main Rehabilitation

Project Number: 210-850-5C34

Program Area: Utilities

 Prior Appropriations:
 14,667,085

 Add New Appropriations:
 4,399,000

 Add Future Appropriations:
 10,918,534

 Current Project Total:
 29,984,619

 Add Unfunded:

Current Project Total with Unfunded: 29,98

 Status of Prior Year Appropriations as of 05/01/12:

 Prior Year Appropriations:
 14,667,085

 Less Expended:
 13,484,474

 Prior Year Funds Carried Over:
 1,182,611

 Add New Appropriations:
 4,399,000

 Total FY 2013 Appropriations:
 5,581,611

Percent Expended: 45%



Percent Completed: N/A
Est. Completion Year: On-going

Percent Change:

Description: This sustainable project funds the planning, design and construction of water system improvements annually as part of the plan to upgrade the aging City water system. Upgrades will maintain the vital life-supporting resource of water, provide a more reliable water system and ensure safe drinking water compliant with Federal and State regulations. Improvement projects include inspection and assessment of the 24-inch PCCP transmission main; rehabilitating existing pipe; installing new mains to replace older pipes and pipes made of spiral-welded steel (prone to leaks); water vaults and appurtenance, increasing the diameter of undersized pipes; connecting dead-end pipe segments; and replacing pipes, which have a history of frequent water main breaks. The goals are to: increase fire flows, especially in fire hydrants providing less than 500 gallons-per-minute; improve water quality; upgrade aging infrastructure; reduce frequency of water main breaks; and replace pipes with excessive tuberculation. Starting in FY 2015, this project will fund water system improvements at an average 1.7 miles per year consistent with the originally approved 20-year, 34 mile schedule.

Appropriation	Prior	New		Future Ap	propriation S	Schedule		Current
Schedule	Approps	Approps	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total
Plan/Design/Insp	2,152,800	553,080	189,322	138,700	142,861	147,147	on-going	3,323,910
Construction	12,514,285	3,845,920	3,155,363	2,311,670	2,381,020	2,452,451	on-going	26,660,709
Total	14,667,085	4,399,000	3,344,685	2,450,370	2,523,881	2,599,598	on-going	29,984,619
Funding	Prior	New		Future Funding Schedule				
Schedule	Funding	Funding	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total
Water Fund	1,776,785	2,199,500	1,672,343	1,225,185	1,261,941	1,299,799	on-going	9,435,552
Bond Proceeds (Water)	12,768,800	2,199,500	1,672,343	1,225,185	1,261,941	1,299,799	on-going	20,427,567
Developer	121,500	-	-	-	-	-	-	121,500
Total	14,667,085	4,399,000	3,344,685	2,450,370	2,523,881	2,599,598	on-going	29,984,619
Unfunded Schedule FY 2013			FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total
Unfunded		-	-	-	-	-	-	-
Operating Cost Impac	Operating Cost Impact FY 2013			FY 2015	FY 2016	FY 2017	Future Yrs	
Water Fund		-	-	-	-	-	-	

Explanation of impact: This project will have no measurable impact on the budget.

Schedule: Prior years work and FY 2013 — Pipe upgrades in Montrose, Twinbrook and Wood Lane; replace water meter vault at 1251 W. Montgomery Ave. FY 2014 — Pipe upgrades in Lincoln Park, East Rockville and Twinbrook. FY 2015 — Pipe upgrades in Hungerford, East Rockville and Twinbrook. FY 2016 — Pipe upgrades in East Rockville, Lincoln Park and Montrose. FY 2017 — Pipe upgrades in Twinbrook and East Rockville. Future Years — Pipe upgrade locations to be determined.

Status: Implementation. This project first appeared in the FY 2005 CIP.

Coordination: Neighborhood Civic Associations and Adjacent Landowners; Neighborhood Resource Division; Montgomery County Fire and Rescue Service; Asphalt Repair and Replacement project (420-850-0A11) and Bridge Rehabilitation project (380/420-850-8L11) in the Transportation Program Area.

Staff contact: Department of Public Works. John W. Hollida, Civil Engineer III, 240-314-8526.

Project Name: Blue Plains Wastewater Treatment

Project Number: 220-850-1A45

Program Area: Utilities

 Prior Appropriations:
 13,080,000

 Add New Appropriations:
 6,414,000

 Add Future Appropriations:
 15,175,000

 Current Project Total:
 34,669,000

Add Unfunded: 34,069,000

Current Project Total with Unfunded: 34,669,000

Status of Prior Year Appropriations as of 05/01/12:

 Prior Year Appropriations:
 13,080,000

 Less Expended:
 7,762,705

 Prior Year Funds Carried Over:
 5,317,295

 Add New Appropriations:
 6,414,000

 Total FY 2013 Appropriations:
 11,731,295

Percent Expended: 22%



Project Snapshot

Original Project Total w/Unfunded: N/A
Current Project Total w/Unfunded: 34,669,000

Percent Change: N/A

Percent Completed: N/A
Est. Completion Year: On-going

Description: This project funds the City's cost-share to enhance the wastewater treatment at the DC Water Blue Plains Advanced Wastewater Treatment Plant (Blue Plains). The City is allocated 9.31 million gallons per day (mgd) capacity of wastewater treatment. The City cost-share is for WSSC projects which either support system improvements or environmental regulations at Blue Plains. The FY 2013 spending peak is due to the design and construction of two large initiatives by DC Water: Biosolids Management and Enhanced Nutrient Removal (ENR). The Biosolids Management project will limit the solids produced at the plant and recapture energy from the digestion process. ENR will be implemented to meet new environmental regulations mandated by an EPA-issued consent decree and a National Pollutant Discharge Elimination System (NPDES) permit.

Appropriation	Prior	New		Current				
Schedule	Approps	Approps	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total
Construction	13,080,000	6,414,000	5,242,000	3,018,000	3,657,000	3,258,000	on-going	34,669,000
Total	13.080.000	6.414.000	5.242.000	3.018.000	3.657.000	3.258.000	on-going	34.669.000

Funding	Prior	New		Future Funding Schedule						
Schedule	Funding	Funding	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total		
Sewer Fund	3,000,000	-	-	-	-	i	-	3,000,000		
Bond Proceeds (Sewer)	10,080,000	6,414,000	5,242,000	3,018,000	3,657,000	3,258,000	on-going	31,669,000		
Total	13,080,000	6,414,000	5,242,000	3,018,000	3,657,000	3,258,000	on-going	34,669,000		
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Unfunded Schedule	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total
Unfunded	=	-	-	-	-	-	-

Operating Cost Impact	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs
Sewer Fund	-	-	-	-	-	-

Explanation of impact: This project will have no measurable impact on the operating budget.

Schedule: WSSC has six CIP projects, which fund many DC Water CIP projects. FY 2013 through FY 2017 — The six active WSSC projects are: S-22.06 - Liquid Train Projects; S-22.07 - Biosolids Management; S-22.08 - Biological Nutrient Removal; S-22.09 - Plant-wide Projects; S-22.10 - Enhanced Nutrient Removal (ENR); and S-22.11 - Pipelines & Appurtenances. Future Years — Projects to be determined.

Status: Implementation. This project first appeared in the FY 2011 CIP. Note: These numbers reflect the City's 5.5 percent cost-share of WSSC total costs provided in the WSSC Proposed FY 2013 Budget as adjusted after reconciliation with actual spending through FY 2011. The WSSC share is approximately 46 percent of the Blue Plains' costs in accordance with the 1985 Inter-Municipal Agreement, except project S-22.11, which is primarily based on WSSC sewage flow through the DC Water sewer mains. The ENR project in the Proposed FY 2013 WSSC Budget is partially funded by the Maryland Chesapeake Bay Restoration Fund that City utility customers contribute towards.

Coordination: WSSC Capital Improvements Program; DC Water Capital Improvements Program.

Staff contact: Department of Public Works. Jim Woods, Civil Engineer II, 240-314-8521.

Project Name: Horizon Hill SWM Ponds

Project Number: 330-850-2C59

Program Area: Stormwater Management

460,000 **Prior Appropriations:** Add New Appropriations: 2,008,700 Add Future Appropriations:

Current Project Total: 2,468,700 Add Unfunded:

Current Project Total with Unfunded: 2,468,700

Status of Prior Year Appropriations as of 05/01/12:

Prior Year Appropriations: 460,000 Less Expended: 127,283 **Prior Year Funds Carried Over:** Add New Appropriations: **Total FY 2013 Appropriations:**

Percent Expended: 5%



Original Project Total w/Unfunded: 650,000 Current Project Total w/Unfunded: 2,468,700 280%

Percent Change:

Percent Completed:

Est. Completion Year: FY 2014

Description: This project funds the concept development, design and construction to the Horizon Hill Park stream valley, including modifying three existing Stormwater Management (SWM) dry ponds. SWM facilities are needed to protect private and public property from flooding, reduce stream erosion and filter contaminants from the runoff. This project will treat 80.5 acres of impervious surface (with a drainage area of 165.3 acres). The storm runoff flows directly to the stream without passing through modern SWM facilities. This project was recommended in the 2001 Watts Branch Watershed Study. The project also will provide reforestation/afforestation, where appropriate. Staff is working closely with the community and the Department of Recreation and Parks in the design and construction phase to reduce the impact on the forest, wetland and recreation areas.

Appropriation	Prior	New		Future Ap	propriation	Schedule		Current
Schedule	Approps	Approps	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total
Plan/Design/Insp	230,000	-	-	-	-	-	-	230,000
Construction	230,000	2,008,700	-	-	-	-	-	2,238,700
Total	460,000	2,008,700	1	1	-	-	-	2,468,700
Funding	Prior	New	Future Funding Schedule					Current
Schedule	Funding	Funding	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total
Stormwater Mgmt Fund	432,000	1	-	-	-	-	-	432,000
Bond Proceeds (SWM)	ı	2,008,700	ı	ı	-	-	-	2,008,700
Federal Grant (SWM)	28,000	ı	ı	ı	-	-	-	28,000
Total	460,000	2,008,700	-	-	-	-	-	2,468,700
Unfunded Schedule		FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	Total
Unfunded		-	-	-	-	-	-	-
Operating Cost Impact		FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Future Yrs	
General Fund		-	-	3,000	-	-	-	
Stormwater Mgmt Fund		=	=	20,000	-	-	-	

Explanation of impact: The completion of this project will add \$23,000 to the FY 2015 operating budget to fund pond maintenance (\$20,000) and continued management of non-native invasive species plants (\$3,000).

Schedule: Prior years work to be completed — Complete design. FY 2013 — Construct SWM facilities.

Status: Design. This project first appeared in the FY 2002 CIP. Note: Park upgrades will be explored with the community, although they are beyond the scope of this SWM project. If appropriate, a separate project will be created in the Recreation and Parks Program Area for park upgrades. Funding Note: In FY 2011, the City received a \$28,000 Chesapeake Bay Trust

Coordination: Neighborhood Civic Associations and Adjacent Landowners; Development Review Committee; Army Corps of Engineers; Maryland Department of the Environment; Natural Resource Conservation Service; Neighborhood Resource Division; Department of Recreation and Parks.

Staff contact: Department of Public Works. Gabe Kosarek, Civil Engineer II, 240-314-8513.